



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Matthew J. WAGNER Confirmation No.: 1613
Application Serial No.: 10/780,397
Filed: February 17, 2004
Title: COMPUTER SECURITY SYSTEM AND METHOD
Group Art Unit: 2115
Examiner: Abbaszadeh, Jaweed A.
Docket No.: 200314073-1

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**DECLARATION OF JAMES L. BAUDINO
UNDER 37 C.F.R. SECTION 1.131**

I, James L. Baudino, am a shareholder at the law firm of Munsch Hardt Kopf & Harr, P.C. ("Munsch Hardt"). I am a registered patent attorney. My U.S. Patent and Trademark Office registration number is 43,486.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class mail in an envelope addressed to: Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450 Alexandria, V.A. 22313-1450.

Name of Person Signing Certificate: Allen B. Kroger

Signature:  Date: March 10, 2008

I was involved in the preparation and filing of the above-identified patent application under the supervision of Ms. L.Joy Griebenow, who was an employee and Senior Counsel in the Legal-Intellectual Property department of Hewlett-Packard Company at the time the above-identified patent application was prepared and filed.

Munsch Hardt was engaged by Hewlett-Packard to prepare the above-identified patent application. Attached hereto as Exhibit A is a true copy of a correspondence received from L.Joy Griebenow on a date prior to December 5, 2003, with portions redacted as noted, requesting a quoted cost for preparing and filing the above referenced patent application. Upon the engagement of Munsch Hardt, the above-identified patent application was duly docketed for preparation in the ordinary course of business. In the course of this engagement, a review of the disclosure materials and telephonic interviews were conducted with the inventor(s) in the course of preparing a draft version of the above-identified patent application. Feedback from the inventor(s) was solicited in preparing and revising the draft version of the patent application. Attached hereto as Exhibit B is a true copy of time records and accompanying service details, with portions redacted as noted, that were entered into a Sage Carpe Diem billing software product used by Munsch Hardt for time and expense tracking for services relating to the preparation of the above-identified patent application. Attached hereto as Exhibit C are true copies of a letter (dated prior to December 5, 2003) and emails (dated December 9, 2003, December 16, 2003, and December 18, 2003) transmitting draft versions of the patent application and soliciting/discussing feedback from the inventors regarding draft versions of the patent application. Attached hereto as Exhibit D is a true copy of an email (dated prior to December 5, 2003) transmitting a draft version of the patent application for review by Ms. L.Joy Griebenow. After the draft was completed to the satisfaction of the inventors, the completed draft application was submitted to Ms. L.Joy Griebenow via e-mail for review on or about February 10, 2004. A copy of that e-mail is attached hereto as Exhibit E, with portions redacted as noted.

I received feedback from Ms. L.Joy Griebenow on the draft application on or around February 11, 2004. In the ordinary course of business, I incorporated that feedback into the final version of the application and sought the inventor's final review and approval of the application, which was filed in the U.S. Patent and Trademark Office on February 17, 2004.

During the time period after being engaged to prepare a patent application, my typical practice is to prepare and/or supervise the preparation of draft applications based on the chronological order in which Munsch Hardt was engaged to prepare the application. These typical practices were subject to interruption by emergency matters such as impending bar dates in other cases or time deadlines imposed by federal law for responding to communications from the U.S. Patent and Trademark office in other matters that I am involved with and/or are under my supervision.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

EXHIBIT A

SIGNATURE

James L. Baudino

Signature *James L. Baudino*

Date: *3-7-08*

Citizenship: United States of America

Residence: Arlington, Texas



Hewlett-Packard Company
Legal Department MS 79
3404 E Harmony Rd
Ft. Collins, CO 80528
www.hp.com

L.Joy Griebenow
IP ATTORNEY

REDACT

REDACT

James L. Baudino
Munsch Hardt Kopf & Harr, P.C.
4000 Fountain Place
1445 Ross Avenue
Dallas, TX 75202-2790

RE: Preparation of Patent Application
Pursuant to Outside Counsel Procedures REDACT
HP Reference No.:200314073-1
Entitled: REDACT
HP Required Date: REDACT

Dear James:

We would like you to provide a quote of the cost for your firm to prepare a US Patent application based on the HP Invention Disclosure identified above, a copy of which is enclosed.

Your quote should be based on preparing an application including the items noted on the enclosed Outside Counsel Checklist and according to HP's Outside Counsel Procedures referenced above, for filing by our Required Date.

Your quote should be submitted on the enclosed Request for Quote and Engagement Letter Agreement. If your quote is accepted, we will return a fully executed copy of the Agreement to you for your records. **The Agreement will not be binding on you or on HP until signed by HP's authorized representative.**

If the Agreement is not signed and returned to HP, any bills submitted by you cannot be paid.

Thank you for your assistance in reviewing this invention disclosure. If your review indicates a possible conflict for your firm, you should advise us within one week of receipt of this letter.

Sincerely,

L.Joy Griebenow/tas

L.Joy Griebenow

Enc.: HP Invention Disclosure
RFQ
Filing Procedures Checklist
Supplemental Procedures for New Cases

EXHIBIT B

| <u>Date</u> | <u>Initials</u> | <u>Name / Invoice Number</u> | <u>Hours</u> | <u>Amount</u> | <u>Description</u> |
|-------------|-----------------|------------------------------|--------------|---------------|--|
| REDACT | | 488 Jim Baudino | | | |
| | | | 2.90 | | Reviewing invention disclosure information; telephone conference with Ms. Griebenow regarding the disclosure information; researching authentication schemes in preparation for inventor interview. |
| REDACT | | 488 Jim Baudino | 3.20 | | Preparing for inventor interview; telephone conference with Mr. Ali regarding the invention; performing patentability search directed toward the invention. |
| REDACT | | 488 Jim Baudino | 1.20 | | Reviewing the results of the patentability search. |
| REDACT | | 488 Jim Baudino | 2.40 | | Formulating strategy for application figures; laying out the figures for the application. |
| REDACT | | 488 Jim Baudino | 1.20 | | Reviewing and revising the figures. |
| REDACT | | 488 Jim Baudino | 4.00 | | Formulating strategy for claims; drafting a first set of claims for the application; drafting a second set of claims for the application. |
| REDACT | | 488 Jim Baudino | 3.20 | | Reviewing and revising the first and second sets of claims; drafting a third set of claims; reviewing and revising the third set of claims. |
| REDACT | | 488 Jim Baudino | 4.10 | | Reviewing and revising the figures; drafting the background of the invention; drafting the summary of the invention; drafting the brief description of the drawings; reviewing and revising the claims; reviewing and revising the summary; reviewing and revising the background. |
| REDACT | | 488 Jim Baudino | 4.30 | | Drafting the detailed description of the invention. |
| REDACT | | 488 Jim Baudino | 3.40 | | Reviewing and revising the detailed description of the invention. |
| REDACT | | 488 Jim Baudino | 1.90 | | Telephone conference with Mr. Ali regarding the invention; reviewing and revising the detailed description; reviewing and revising the claims; reviewing and revising the summary; drafting the abstract. |
| REDACT | | 488 Jim Baudino | 1.90 | | Reviewing and revising the figures; reviewing and revising the claims; reviewing and revising the detailed description. |
| 12/22/2003 | | 488 Jim Baudino | 1.70 | | Reviewing inventor comments for application draft; reviewing and revising the application draft. |
| 1/27/2004 | | 488 Jim Baudino | 1.00 | | Telephone conference with the inventors regarding the draft application; reviewing and revising the figures; reviewing and revising the detailed description; reviewing and revising the claims. |

EXHIBIT C

REDACT

REDACT

Valiuddin Ali
Hewlett-Packard Company
REDACT

Re: U.S. Patent Application
Entitled: REDACT
Inventors: Valiuddin Ali and Matthew J. Wagner
Your Ref. No.: REDACT
Our File No.: REDACT

Dear Mr. Ali:

Enclosed is a ^{red-}act draft of the above-identified application for patent along with a copy of informal drawings. Please carefully review to see that the application and drawings accurately and adequately describe the invention. After your review, please forward the application and drawings to Mr. Matthew J. Wagner for his review. After you and Mr. Wagner have completed your review, please fax or e-mail any changes or corrections to me at REDACT REDACT

Please note that the inventor has a duty to disclose material prior art to the PTO. Such prior art includes relevant patents and printed publications, information concerning public use of methods or apparatus related to the invention, and information on public use or sales of the invention (or related methods or apparatus) made more than a year ago. Failure to disclose such prior art may invalidate any patent issuing on the application.

Should you have any questions or comments, please do not hesitate to contact me.

Sincerely,
REDACT

James L. Baudino

JLB:jbf
Enclosures

cc: L.Joy Griebenow (via e-mail w/encls.)

From: Baudino, Jim
Sent: Tuesday, December 09, 2003 4:13 PM
To: REDACT
Subject: Patent Apps

Attachments: 200314073-1 (Authentication System).DOC; 200314072-1 (Recovery Mechanism).DOC



200314073-1 200314072-1
(Authentication Sy..Recovery Mechanis..

James (Jim) L. Baudino
Munsch Hardt Kopf & Harr, P.C.
REDACT

This e-mail message is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. The contents of this email are confidential and may be subject to the attorney client and work product privileges. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Please virus check all attachments to prevent widespread contamination and corruption of files and operating systems.

From: Ali, Vali REDACT
Sent: Tuesday, December 16, 2003 4:09 PM
To: Baudino, Jim
Cc: Novoa, Manny; Wagner, Matthew; Ali, Vali
Subject: Revised patent write-ups...

Importance: High

Attachments: 200314073-1 (Authentication System) - HP edits.zip



200314073-1
(Authentication Sy...

<<200314073-1 (Authentication System) - HP edits.zip>>

Jim,

Please find the modified patent write-ups for the two applications that you forwarded to us last week. The edits include comments from Manny Novoa, Matthew Wagner, and myself. Some of these are direct edits and others are comments (I have turned on the track changes so you can view our changes). Please advise when or if you want to have a follow-up call for us to go over these with you. We are okay with these changes for you to word smith (put in legalese) and submit to Patent Office.

Thx.

Vali Ali
REDACT

From: Baudino, Jim
Sent: Thursday, December 18, 2003 7:27 AM
To: 'Ali, Vali'
Subject: RE: Revised patent write-ups...

Received. I will probably want to go over your changes as well as any comments received from Ms. Griebenow. I have forwarded your request to Ms. Griebenow to add Manny as an inventor on 200314073-1. I should be able to call you either later today or tomorrow to discuss. _REDACT

REDACT

-----Original Message-----

From: Ali, Vali [mailto:REDACT]
Sent: Tuesday, December 16, 2003 4:09 PM
To: Baudino, Jim
Cc: Novoa, Manny; Wagner, Matthew; Ali, Vali
Subject: Revised patent write-ups...
Importance: High

<<200314073-1 (Authentication System) - HP edits.zip>>

Jim,

Please find the modified patent write-ups for the two applications that you forwarded to us last week. The edits include comments from Manny Novoa, Matthew Wagner, and myself. Some of these are direct edits and others are comments (I have turned on the track changes so you can view our changes). Please advise when or if you want to have a follow-up call for us to go over these with you. We are okay with these changes for you to word smith (put in legalese) and submit to Patent Office.

Thx.

Vali Ali
REDACT

EXHIBIT D

From: GRIEBENOW,L.JOY REDACT
Sent: REDACT
To: Baudino, Jim; GRIEBENOW,L.JOY
Subject: HP 200314073-1

Attachments: HP_20031.pdf



HP_20031.pdf (970
KB)

Please open the attached document.
This document was sent to you using an HP Digital Sender.

| | |
|-------------------------|------------------------|
| Sent by: | GRIEBENOW,L.JOY REDACT |
| Number of pages: | 22 |
| Document type: | B/W Document |
| Attachment File Format: | Adobe PDF |

To view this document you need to use the Adobe Acrobat Reader.
For free copy of the Acrobat reader please visit:

<http://www.adobe.com>

For more information on the HP Digital Sender please visit:

REDACT

EXHIBIT E

From: Baudino, Jim
Sent: Tuesday, February 10, 2004 1:14 PM
To: REDACT
Subject: 200314073-1 Revised Draft

Attachments: 200314073-1 (Authentication System).DOC; 200314073-1DWGS.pdf

L.Joy,

Attached is the revised draft of the application.

James (Jim) L. Baudino
Munsch Hardt Kopf & Harr, P.C.
REDACT

This e-mail message is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. The contents of this email are confidential and may be subject to the attorney client and work product privileges. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Please virus check all attachments to prevent widespread contamination and corruption of files and operating systems.



200314073-1 200314073-1DWGS
(Authentication Sy... .pdf (515 KB))

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Matthew J. WAGNER, et. al. Confirmation No.: 1613
Application Serial No.: 10/780,397
Filed: February 17, 2004
Title: COMPUTER SECURITY SYSTEM AND METHOD
Group Art Unit: 2115
Examiner: Abbaszadeh, Jaweed A.
Docket No.: 200314073-1

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**DECLARATION OF MATTHEW J. WAGNER
UNDER 37 C.F.R. SECTION 1.131**

I, Matthew J. Wagner, a co-inventor of the above-referenced patent application, am an employee of Hewlett-Packard Company, the assignee of this invention and application. Enclosed hereto as Exhibit A is a true copy of an invention disclosure form, with dates and portions redacted as noted, which was submitted to the Legal-Intellectual Property department of Hewlett-Packard Company in the ordinary course of business as part of Hewlett-Packard Company's invention disclosure program on a date prior to December 5, 2003.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class mail in an envelope addressed to: Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450 Alexandria, V.A. 22313-1450.

Name of Person Signing Certificate: Allen B. Kroger

Signature:  Date: March 10, 2008

The invention that is the subject matter of the claims of the above-referenced application was conceived with co-inventors Valiuddin Ali and Manuel Novoa while working in the United States for Hewlett-Packard Company. The claimed subject matter of the above-referenced application was conceived and illustratively described in the invention disclosure form of Exhibit A. Specifically, at least pages 5 and 6 of Exhibit A includes an explanation/illustration of the subject matter of the claims in the present application.

Prior to December 5, 2003, I received and reviewed a draft of the above-referenced patent application. On or about February 11, 2004, I received a final draft of the above-referenced patent application to review. I reviewed the drafts of the above-referenced application and provided to counsel my comments, if any, on the draft applications.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE

Matthew J. WAGNER

Signature

Citizenship

United States of America

Residence:

Cypress, Texas 77429

Date:

2/29/08

EXHIBIT A

Write in Dark Ink on Front Side Only, Please



INVENTION DISCLOSURE

PDNO 200314073

DATE RCVD

REDACT

PAGE ONE OF ____

ATTORNEY

AWW

Instructions: The information contained in this document is HP Confidential and may not be disclosed to others without prior authorization. Submit this disclosure to the HP Legal Department as soon as possible. No patent protection is possible until a patent application is authorized, prepared, and submitted to the Government.

Descriptive Title of Invention:

Method and procedure for "Enhancing existing self-managed authentication schemes" for systems, system resources, or peripherals. The enhancements target the weaknesses in the current schemes and makes them:

REDACT

Note that "self-managed" means a system that does not rely on external resources for user / access authentication. This includes storing the user credentials securely by and within itself.

Name of Project:

Security

Product Name or Number:

<None Specific>

Was a description of the invention published, or are you planning to publish? If so, the date(s) and publication(s):

REDACT

Was a product or prototype including the invention (i) announced, offered for sale, or sold to any third party (for example, customer, supplier, contract manufacturer), or (ii) sold to HP by, for example, a supplier or contract manufacturer, or (iii) is such activity proposed? If so, when and to whom?:

REDACT

Was the invention disclosed to anyone outside of HP, or will such disclosure occur? If so, the date(s) and name(s):

REDACT

If any of the above situations will occur within 3 months, call your IP attorney or the Legal Department now at 1-898-4919 or 970-898-4919.

Was the invention described in a lab book or other record? If so, please identify (lab book #, etc.)

REDACT

Was the invention built or tested? If so, the date:

REDACT

Was this invention made under a government contract? If so, the agency and contract number:

REDACT

Description of Invention: Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).

- A. Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)
- B. Advantages of the invention over what has been done before.
- C. Problems solved by the invention.
- D. Prior solutions and their disadvantages (if available, attach copies of product literature, technical articles, patents, etc.).

REDACT

Signature of Inventor(s): Pursuant to my (our) employment agreement, I (we) submit this disclosure on this date: []

REDACT

Matthew J. Wagner

REDACT

REDACT

PSG

REDACT

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| | | | | | |
|--|---------------|-----------|--------|----------|-------------------|
| Employee No. | Name | Signature | Telnet | Mailstop | Entity & Lab Name |
| REDACT | Valiuddin Ali | | REDACT | REDACT | PSG |
| Employee No. | Name | Signature | Telnet | Mailstop | Entity & Lab Name |
| | | | | | |
| Employee No. | Name | Signature | Telnet | Mailstop | Entity & Lab Name |
| | | | | | |
| Employee No. | Name | Signature | Telnet | Mailstop | Entity & Lab Name |
| (If more than four inventors, include additional information on another copy of this form and attach to this document) | | | | | |

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| | | | |
|--|-----------|-------------------|-------------------|
| INVENTION DISCLOSURE | | HP Confidential | PAGE ____ OF ____ |
| Signature of Witness(es): <i>(Please try to obtain the signature of the person(s) to whom invention was first disclosed.)</i> | | | |
| The invention was first explained to, and understood by, me (us) on this date: [_____] 1 | | | |
| Full Name | Signature | Date of Signature | |
| Full Name | Signature | Date of Signature | |

| | | | |
|--|--|-------------|-----------|
| Inventor & Home Address Information: <i>(If more than four inventors, include addl. information on a copy of this form & attach to this document)</i> | | | |
| Inventor's Full Name | | | |
| Matthew J. Wagner | | | |
| Street | | | |
| REDACT | | | |
| City | | State | Zip |
| REDACT | | | |
| Do you have a Residential P.O. Address? P.O. BOX | | City | State Zip |
| REDACT | | | |
| Greeted as <i>(nickname, middle name, etc.)</i> | | Citizenship | |
| REDACT | | | |

| | | | |
|---|--|-------------|-----------|
| Inventor's Full Name | | | |
| Valiuddin Ali | | | |
| Street | | | |
| REDACT | | | |
| City | | State | Zip |
| REDACT | | | |
| Do you have a Residential P.O. Address? P.O. BOX | | City | State Zip |
| REDACT | | | |
| Greeted as (<i>nickname, middle name, etc.</i>) | | Citizenship | |
| REDACT | | | |

| | | | |
|---|--|-------------|-----------|
| Inventor's Full Name | | | |
| Street | | | |
| City | | State | Zip |
| Do you have a Residential P.O. Address? P.O. BOX | | City | State Zip |
| Greeted as (<i>nickname, middle name, etc.</i>) | | Citizenship | |

| |
|----------------------|
| Inventor's Full Name |
| Street |

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| | | |
|--|-------------|-----------|
| City | State | Zip |
| Do you have a Residential P.O. Address? P.O. BOX | City | State Zip |
| Greeted as (nickname, middle name, etc.) | Citizenship | |

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Description of Invention: *Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).*

Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)

Some computer systems, system resources and peripherals (referred periodically in this Invention Disclosure as "device" or "devices") incorporate self-managed authentication mechanisms that require a user credential (e.g. a password) as a condition for access. In this context, self-managed means that the device does not rely on an external service or other entity to authenticate the user on its behalf **REDACT**

REDACT . Also, self-managed implies that the authentication mechanism is not governed by an overarching IT security policy that defines, for example, such things as required password attributes, lockout policies or even policies that enforce use of the authentication feature.

This Invention Disclosure describes a method to automate the enablement of such self-managed authentication features with little to no user interaction. In addition, this method provides a mechanism by which such authentication features could be designed to more tightly integrate with a broader IT infrastructure. Doing so enables IT administrators to remotely enable such features on behalf of users or govern their use through a security policy (e.g. define minimum acceptable password length, or disallow access to system resources like network drives if the feature has been turned off after being enabled by the IT administrator).

The following steps describe the general methodology:

- Password protection for the device is invoked either by the user (through a simplified one-touch user interface), remotely by an IT administrator or by the computer system itself in response to a defined security policy update.
- Once invoked the computer system automatically generates a strong password that can conform to specific password security policy using any number of techniques involving hardware or software. It is envisioned that actual implementations will involve generating a random password, encryption key or other credential; however, the exact method of creating the password is implementation specific.
- The computer system BIOS stores the created password using a security subsystem that incorporates any number of attributes, but that at a minimum would incorporate some mechanism for encrypting data (in this case the password) and a mechanism for controlling access to encrypted data.
- The computer system BIOS would then enable password protection for the device using the created password. The computer system would then destroy the clear text password from all accessible memory ensuring no unauthorized access.
- When access to the protected device is required, the security subsystem would first authenticate the user or other requestor. Successful authentication would then allow the above-created password to be decrypted and used to access the protected device.

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The idea described in this Invention Disclosure solves the above problem by defining a unique method REDACT REDACT . In this example REDACT REDACT access credential (i.e. the password) is "AUTOMATICALLY" created in accordance with an IT-defined security password policy and stored securely by some type of security subsystem that integrates with a more comprehensive and manageable IT security infrastructure. REDACT enabled drive would first require the user to authenticate to the security subsystem, which in turn would decrypt the REDACT password and use it to unlock the drive.

Although the example focused on here REDACT , a hard drive access control mechanism, it is important to note that the fundamental idea relates to any computer system, system resource or peripheral that self-manages an authentication mechanism that does not integrate at all or easily with broader IT security infrastructure.

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- (1) User transparency – Minimizes any burden on users by not requiring them to remember another password or to conform to strong password policies that make it difficult to remember or accurately enter a password.
- (2) Security policy integration – By offloading user authentication to a separate security subsystem, an opportunity is created to integrate self-managed authentication mechanisms into a centrally managed and deployed security policy infrastructure, assuming that the security subsystem is integrated into such an infrastructure.
- (3) Strengthens security – Overall security of the system is enhanced by minimizing user burden improving the likelihood that users will use the feature or not undermine it by, for example, insecurely storing passwords on handwritten notes or choosing inherently weak passwords. In addition, potential integration with a broader security policy infrastructure creates an opportunity to enforce strong password policies that otherwise would likely not be implemented if left to individual user discretion.
- (4) Remote deployment – IT administrators are potentially able to remotely enable self-managed authentication mechanisms on behalf of users without the burden of having to create and manage passwords users use for day-to-day access to a protected device.

Problems solved by the invention.

This invention enhances and enables self-managed authentication mechanisms of computer systems, system resources or peripherals to be used with greater user transparency by allowing the access credential (e.g. password) to be managed by a separate security subsystem. In this context transparency implies that little to no user interaction or awareness is required to take advantage of the security feature.

By transparently creating and managing an access credential on behalf of the user several problems are averted:

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Matthew J. WAGNER, et. al. Confirmation No.: 1613
Application Serial No.: 10/780,397
Filed: February 17, 2004
Title: COMPUTER SECURITY SYSTEM AND METHOD
Group Art Unit: 2115
Examiner: Abbaszadeh, Jaweed A.
Docket No.: 200314073-1

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**DECLARATION OF MANUEL NOVOA
UNDER 37 C.F.R. SECTION 1.131**

I, Manuel Novoa, a co-inventor of the above-referenced patent application, am an employee of Hewlett-Packard Company, the assignee of this invention and application.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class mail in an envelope addressed to: Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450 Alexandria, V.A. 22313-1450.

Name of Person Signing Certificate: Allen B. Kroger

Signature:  Date: March 10, 2008

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE

Manuel NOVOA

Signature 

Date: March 1st 2008

Citizenship: United States of America

Residence: Cypress, Texas 77433



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Matthew J. WAGNER, et. al. Confirmation No.: 1613
Application Serial No.: 10/780,397
Filed: February 17, 2004
Title: COMPUTER SECURITY SYSTEM AND METHOD
Group Art Unit: 2115
Examiner: Abbaszadeh, Jaweed A.
Docket No.: 200314073-1

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**DECLARATION OF VALIUDDIN ALI
UNDER 37 C.F.R. SECTION 1.131**

I, Valiuddin Ali, a co-inventor of the above-referenced patent application, am an employee of Hewlett-Packard Company, the assignee of this invention and application. Enclosed hereto as Exhibit A is a true copy of an invention disclosure form, with dates and portions redacted as noted, which was submitted to the Legal-Intellectual Property department of Hewlett-Packard Company in the ordinary course of business as part of Hewlett-Packard Company's invention disclosure program on a date prior to December 5, 2003.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class mail in an envelope addressed to: Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450 Alexandria, V.A. 22313-1450.

Name of Person Signing Certificate: Allen B. Kroger

Signature:  Date: March 10, 2008

The invention that is the subject matter of the claims of the above-referenced application was conceived with co-inventors Matthew J. Wagner and Manuel Novoa while working in the United States for Hewlett-Packard Company. The claimed subject matter of the above-referenced application was conceived and illustratively described in the invention disclosure form of Exhibit A. Specifically, at least pages 5 and 6 of Exhibit A includes an explanation/illustration of the subject matter of the claims in the present application.


Prior to December 5, 2003, I received and reviewed a draft of the above-referenced patent application. On or about February 11, 2004, I received a final draft of the above-referenced patent application to review. I reviewed the drafts of the above-referenced application and provided to counsel my comments, if any, on the draft applications.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE

Valiuddin ALI

Signature



Date:

3/7/2008

Citizenship:

United States of America

Residence:

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EXHIBIT A

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INVENTION DISCLOSURE

PDNO 200314073

DATE RCVD

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PAGE ONE OF ____

ATTORNEY

AWW

Instructions: The information contained in this document is HP Confidential and may not be disclosed to others without prior authorization. Submit this disclosure to the HP Legal Department as soon as possible. No patent protection is possible until a patent application is authorized, prepared, and submitted to the Government.

Descriptive Title of Invention:

Method and procedure for "Enhancing existing self-managed authentication schemes" for systems, system resources, or peripherals. The enhancements target the weaknesses in the current schemes and makes them:

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Note that "self-managed" means a system that does not rely on external resources for user / access authentication. This includes storing the user credentials securely by and within itself.

Name of Project:

Security

Product Name or Number:

<None Specific>

Was a description of the invention published, or are you planning to publish? If so, the date(s) and publication(s):

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Was a product or prototype including the invention (i) announced, offered for sale, or sold to any third party (for example, customer, supplier, contract manufacturer), or (ii) sold to HP by, for example, a supplier or contract manufacturer, or (iii) is such activity proposed? If so, when and to whom?:

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Was the invention disclosed to anyone outside of HP, or will such disclosure occur? If so, the date(s) and name(s):

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If any of the above situations will occur within 3 months, call your IP attorney or the Legal Department now at 1-898-4919 or 970-898-4919.

Was the invention described in a lab book or other record? If so, please identify (lab book #, etc.)

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Was the invention built or tested? If so, the date:

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Was this invention made under a government contract? If so, the agency and contract number:

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Description of Invention: Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).

- A. Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)
- B. Advantages of the invention over what has been done before.
- C. Problems solved by the invention.
- D. Prior solutions and their disadvantages (if available, attach copies of product literature, technical articles, patents, etc.).

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Signature of Inventor(s): Pursuant to my (our) employment agreement, I (we) submit this disclosure on this date: []

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Matthew J. Wagner

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| Employee No. | Name | Signature | Telnet | Mailstop | Entity & Lab Name |
| REDACT | Valiuddin Ali | | REDACT | REDACT | PSG |
| Employee No. | Name | Signature | Telnet | Mailstop | Entity & Lab Name |
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| Employee No. | Name | Signature | Telnet | Mailstop | Entity & Lab Name |
| | | | | | |
| Employee No. | Name | Signature | Telnet | Mailstop | Entity & Lab Name |
| <i>(If more than four inventors, include additional information on another copy of this form and attach to this document)</i> | | | | | |

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| INVENTION DISCLOSURE | | | HP Confidential | PAGE ____ OF ____ |
| Signature of Witness(es): <i>(Please try to obtain the signature of the person(s) to whom invention was first disclosed.)</i> | | | | |
| The invention was first explained to, and understood by, me (us) on this date: [____] | | | | |
| Full Name | Signature | Date of Signature | | |
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| Full Name | Signature | Date of Signature | | |
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| Inventor & Home Address Information: <i>(If more than four inventors, include addl. information on a copy of this form & attach to this document)</i> | | | | |
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Description of Invention: *Please preserve all records of the invention and attach additional pages for the following. Each additional page should be signed and dated by the inventor(s) and witness(es).*

Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer listings; test results; etc.)

Some computer systems, system resources and peripherals (referred periodically in this Invention Disclosure as "device" or "devices") incorporate self-managed authentication mechanisms that require a user credential (e.g. a password) as a condition for access. In this context, self-managed means that the device does not rely on an external service or other entity to authenticate the user on its behalf REDACT

REDACT . Also, self-managed implies that the authentication mechanism is not governed by an overarching IT security policy that defines, for example, such things as required password attributes, lockout policies or even policies that enforce use of the authentication feature.

This Invention Disclosure describes a method to automate the enablement of such self-managed authentication features with little to no user interaction. In addition, this method provides a mechanism by which such authentication features could be designed to more tightly integrate with a broader IT infrastructure. Doing so enables IT administrators to remotely enable such features on behalf of users or govern their use through a security policy (e.g. define minimum acceptable password length, or disallow access to system resources like network drives if the feature has been turned off after being enabled by the IT administrator).

The following steps describe the general methodology:

- Password protection for the device is invoked either by the user (through a simplified one-touch user interface), remotely by an IT administrator or by the computer system itself in response to a defined security policy update.
- Once invoked the computer system automatically generates a strong password that can conform to specific password security policy using any number of techniques involving hardware or software. It is envisioned that actual implementations will involve generating a random password, encryption key or other credential; however, the exact method of creating the password is implementation specific.
- The computer system BIOS stores the created password using a security subsystem that incorporates any number of attributes, but that at a minimum would incorporate some mechanism for encrypting data (in this case the password) and a mechanism for controlling access to encrypted data.
- The computer system BIOS would then enable password protection for the device using the created password. The computer system would then destroy the clear text password from all accessible memory ensuring no unauthorized access.
- When access to the protected device is required, the security subsystem would first authenticate the user or other requestor. Successful authentication would then allow the above-created password to be decrypted and used to access the protected device.

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The idea described in this Invention Disclosure solves the above problem by defining a unique method REDACT REDACT . In this example REDACT REDACT access credential (i.e. the password) is "AUTOMATICALLY" created in accordance with an IT-defined security password policy and stored securely by some type of security subsystem that integrates with a more comprehensive and manageable IT security infrastructure. REDACT enabled drive would first require the user to authenticate to the security subsystem, which in turn would decrypt the REDACT password and use it to unlock the drive.

Although the example focused on here REDACT , a hard drive access control mechanism, it is important to note that the fundamental idea relates to any computer system, system resource or peripheral that self-manages an authentication mechanism that does not integrate at all or easily with broader IT security infrastructure.

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- (1) User transparency – Minimizes any burden on users by not requiring them to remember another password or to conform to strong password policies that make it difficult to remember or accurately enter a password.
- (2) Security policy integration – By offloading user authentication to a separate security subsystem, an opportunity is created to integrate self-managed authentication mechanisms into a centrally managed and deployed security policy infrastructure, assuming that the security subsystem is integrated into such an infrastructure.
- (3) Strengthens security – Overall security of the system is enhanced by minimizing user burden improving the likelihood that users will use the feature or not undermine it by, for example, insecurely storing passwords on handwritten notes or choosing inherently weak passwords. In addition, potential integration with a broader security policy infrastructure creates an opportunity to enforce strong password policies that otherwise would likely not be implemented if left to individual user discretion.
- (4) Remote deployment – IT administrators are potentially able to remotely enable self-managed authentication mechanisms on behalf of users without the burden of having to create and manage passwords users use for day-to-day access to a protected device.

Problems solved by the invention.

This invention enhances and enables self-managed authentication mechanisms of computer systems, system resources or peripherals to be used with greater user transparency by allowing the access credential (e.g. password) to be managed by a separate security subsystem. In this context transparency implies that little to no user interaction or awareness is required to take advantage of the security feature.

By transparently creating and managing an access credential on behalf of the user several problems are averted:

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